

Plan Title:	Administrative Information Management System
Plan Number:	CB-AS-95-03-E
Plan ID:	IT

PART I - INFORMATION TECHNOLOGY ARCHITECTURE PLAN

1. Information Requirements

A. Introduction

The Administrative Information Management System (AIMS) provides administrative services Bureau-wide in a timely and cost-effective manner. AIMS addresses those routine administrative applications that are initiated at the division level but must be processed through other divisions or offices for approval or implementation. AIMS provides the platform for sharing financial, budgetary, and other related administrative information among Census Bureau representatives.

Through AIMS such actions are handled completely electronically from the initiation of the action, through all intermediate steps (including approvals), to the final disposition of the action.

The use of AIMS:

- eliminates redundant data entry and the possibility of introducing errors at intermediate steps.
- allows electronic transmittal of actions to successive points in the processing cycle.
- provides electronic tracking of all actions and the immediate status of any action.
- substantially reduces the reliance on paper documents since few actions are produced as printed output.
- improves our response to requests for information from various sources.

The impact of AIMS has been a significant increase in productivity regarding processing routine administrative actions.

B. Information Flow

AIMS is implemented using a system of relational database software products that were selected for their ability to facilitate the development and maintenance of the various applications that make up AIMS. AIMS runs on a cluster of DEC minicomputers located in the data center in Charlotte NC.

IV-2 U. S. Bureau of the Census 1997 Information Technology Plan

AIMS is composed of the following components:

- Purchase Management Information System (PMIS) encompasses all the actions in the acquisition of goods and services from the creation of the Procurement Request (CD-435), through the issuance of the Purchase Order (CD-404). PMIS also collects and tracks receiving and inventory information and routes appropriate information to Finance to assure proper funds allocation.
- Travel Management Information System (TMIS) processes all actions regarding the documentation of official travel. Included is the creation of the Travel Order (CD-29), Travel Voucher (CD-370), and issuance of a Travel Advance.
- Request for Personnel Action (SF-52) allows users to create, modify, forward, and print each personnel action request.
- Bank Card Information System (BCIS) allows holders of government bank cards to electronically create, modify, and reconcile bank card orders. A reconciled bank card statement is printed and routed to Finance for final action.
- College Applicant Information System (CAIS) tracks applications for employment from college students about to graduate. CAIS gives managers the ability to search for qualified applicants and to review the student's interview schedule that has been set up by Personnel Division.
- Memorandum Approval Information System (MAIS) automates the creation, approval, and tracking of memorandums that are for Bureau-wide distribution.
- Census Legislative Information System (CLIS) is used by the Policy Office to identify, analyze, track, and report on legislation that could affect Census Bureau programs and operations.
- Future Products Information System (FPIS) contains prerelease descriptions (Fact Sheets) of Census data products.
- Budget Management Information System (BMIS) contains various data collection and reporting formats for the formulation of the annual Census budget with real-time updates and budget management.
- Public Use Forms system tracks data collection forms that are pending approval from OMB and those that have already received OMB approval.

Administrative Information Management System CB-AS-95-03-E IV-3

- Employee Record (SF-7) contains a summary of personnel actions for each employee and is maintained manually by the various administrative offices. The next enhancement will be to link this system with the Request for Personnel Action (SF-52) System.
- Request and Authorization for Training (SF-182) records all employee training classes, seminars, etc.
- General information and tools such as an employee roster, calculator, scheduler, word processing, IT Standards, and others.

AIMS was selected as one of the two Department of Commerce Electronic Data Interchange (EDI) pilot sites. EDI has been integrated into PMIS and will serve as an example of EDI in procurement for the Department of Commerce.

All basic AIMS applications utilize an electronic creation through approval chain.

- Creator - the AIMS user who creates the initial action (i.e., CD-435).
- Initiator - the AIMS user who administers the routing of the action.
- Administrator - the AIMS user who verifies the data on the action before the request is forwarded for approvals. This is usually the Administrative Liaison.
- Approver - the AIMS user who initials, signs, or reviews the action.
- In the case of a CD-435, the action would be routed to the appropriate Office of the Comptroller staff for further validation.
- Depending on the action, financial and budgetary data can be compared to insure that sufficient funds, etc., exist prior to action completing approval process.

2. Planned Processing and Telecommunications Architecture

A. Current Architecture

AIMS hardware is comprised of Digital Equipment Corporation (DEC) minicomputer systems located in the Bureau data center in Charlotte NC. This hardware includes a Digital 7610, 6610, 8530, and four 3500 systems.

AIMS can be accessed either by use of a DEC terminal or by a personal computer that has access to a local area network and is capable of running software that emulates a DEC terminal. Peripheral equipment (i.e., laser printer) is available in the using office.

AIMS is implemented using Ingres, a fourth generation relational database tool from Computer Associates. WordPerfect Office is used as the AIMS shell for electronic mail, calendaring, and other associated office automation functions.

B. Alternatives

IV-4 U. S. Bureau of the Census 1997 Information Technology Plan

There are no alternative architectures being considered for the operation of AIMS.

C. Proposed Architecture

Implementation of the Commerce Administrative Management System (CAMS), including the Core Financial System (CFS) is projected for FY 1998. Since CAMS will run on different hardware systems, there are no changes anticipated to the existing AIMS hardware.

D. Benefits

The AIMS provides:

- Data validation. During data entry, up-front validation eliminates the need to return improperly completed forms, such as the CD-435 (Purchase Order), CD-29 (Travel Order), etc., to the initiating division.
- Electronic routing of data. Instead of shuffling paper requests from office to office which increases the risk of misplacing or losing original documents, routing data electronically improves the timely transfer of requests.
- Tracking system. By providing all parties involved the ability to monitor the progress of a request, the AIMS eliminates the guesswork or the need to phone a chain of approvers.
- Extensive security. The AIMS allows only those authorized users access to either restricted applications or portions of those applications. Restricted options do not even appear on the screen of restricted users.
- Risk avoidance. All applications which approve requests are designed with Census Bureau policies and standards in mind.
- Query potential. Although not necessarily incorporated into the AIMS itself, the capability exists to satisfy managers' requests such as: a list of all employees who are Grades 13 and above; to which cities do employees most frequently travel; amount of obligated funds generated via CD-435s, etc.
- Electronic mail. Electronic mail alerts users of any AIMS documents awaiting approval.
- Paper reduction. Divisions will no longer be required to manually complete a paper form (e.g., CD-435). All administrative forms will be electronically printed only after all appropriate approvals have occurred. This eliminates not only wasted paper but reduces the stocking requirements to make forms available.

Administrative Information Management System CB-AS-95-03-E IV-5

- Responsible updating. The responsibility to update information has been given to those divisions and offices with a vested interest in the accuracy of that data.
- Field population. In an effort to minimize data entry, many applications populate fields based on a single field's entry. It is not unusual for forms to require an employee's name, SSN, phone, room, and division; this information can be derived by simply entering the employee's name. As a bonus, this also eliminates the need to pull an employee's folder prior to entry of such information.
- Duplicate systems. Divisions and/or Offices will no longer feel the necessity to develop and maintain individual programs to track budget, travel, etc., in order to have an accurate picture of current budget limitations.
- Centralize Administrative Information. Currently, many systems reside on Unisys, PC, and other platforms. Problems with exchanging information and keeping up-to-date data available are virtually eliminated.
- Provide applications that are more responsive to user requirements.

E. Performance Measures

Savings of time, accuracy, and efficiency are achieved by automation. Below are samples of this goal:

a. Purchase Management Information System (PMIS)

Action	Days
Division Initiating Request	2
Procurement Office	1
Comptroller (Finance)	1
Procurement Office	1
Total	5

Automation takes less than a day. Savings: 4 days

- An estimated 413 Small Purchases per month are processed at the Census Bureau.
- Total Savings Per Month: 413 purchases X 4 day savings = 1652 days.

IV-6 U. S. Bureau of the Census 1997 Information Technology Plan

b. Travel Management Information System (TMIS)

Action	Days
Division Initiating Request	1
APSD	1
Total	2

Automation takes less than a day. Savings: 2 days

- An estimated 200 per month are processed at the Census Bureau.
- Total Savings Per Month: 200 travel request X 2 day savings = 400 days.

c. Budget Management Information System (BMIS)

The availability of BMIS has added a totally new dimension to budgeting at the Census Bureau. The system has contributed significant advances in timing, quality and on-line availability of budget operating plan data.

- 1) In terms of timing alone, BMIS reduced the budget preparation and approval process from over 4 months to less than 2 months.
- 2) In October 1993, we were able to process congressional budget cuts and prepare a revised apportionment in less than 2 weeks.
- 3) We were able to provide publication data requested by the Department of Commerce in less than 2 hours. Under the old system, a computer programmer would have been required to write a special program, and the process could have taken days instead of hours.

However, timing is only one dimension. We cannot begin to quantify the quality control aspects that have eliminated coding and keying errors as well as automatic calculation of all applicable rates. We now have absolute compliance with budgetary controls.

Users are pleased with the simplicity of operation and they have immediate access to the status of their projects at their fingertips. The database allows the budget staff to generate system queries on an ad hoc basis.

Plan Title:	Administrative Information Management System
Plan Number:	CB-AS-95-03-E
Plan ID:	IT

PART II - ANNUAL PLAN

1. Architecture Status

There are no upgrades or enhancements anticipated for the hardware that is used to implement AIMS.

2. IT Objectives

AIMS is a mature administrative support system which currently has thirteen major sub-systems as described in Part I, Section 1-A. AIMS serves over 2,000 customers (authorized users) that are located in all of the Bureau's divisions and offices at Headquarters as well as the regional offices and at Jeffersonville.

AIMS is supported by a staff of eleven programmers and one trainer. This staff is involved in support of AIMS in these areas:

- maintenance (revision) of the existing AIMS systems in response to user inquiries and problems.
- enhancement and revision (fine tuning) of the existing AIMS systems in response to changing requirements and the needs of the AIMS users. The evolution of AIMS functionality is largely user driven. As the users gain more experience with AIMS, they request that more new and innovative features be incorporated into its capabilities.
- development of new AIMS systems. The evolution of AIMS has included the development of new applications. In FY 1997 most of the work in this area will be in support of the implementation of CAMS and the CFS including the conversion of AIMS system to function under the CAMS umbrella.

IV-8 U. S. Bureau of the Census 1997 Information Technology Plan

3. Status

A. Accomplishments/Progress

The various AIMS systems were implemented as follows:

AIMS System	Develop	
	Start	End
BMIS	2/91	10/91
BCIS	8/94	1/95
CLIS	11/92	1/93
MAIS	3/93	4/93
CAIS	2/92	12/93
FPIS	2/94	1/95
GENERAL	2/91	6/91
PMIS	1/91	5/93
SF-52	5/94	12/95
TMIS	1/91	5/93
SF-7	9/93	2/94
PUB FORMS	8/94	12/94
SF-182	6/95	3/96

B. Current Plans

When the CFS is implemented, all of the user interfaces that are to be a part of CAMS may not be operational. This situation will require that certain AIMS systems will be used as "feeder systems" to the CFS until the appropriate CAMS module is brought on-line. The AIMS programmers will create a software "interface" to convert data from its AIMS format into a format compatible with CFS. As each appropriate CAMS module is brought on-line, use of the corresponding AIMS feeder system will be discontinued.

The remaining AIMS systems will then be converted to run under the CAMS umbrella.

4. Implementation Schedule

Implementation of CFS and CAMS will result in the following AIMS systems being discontinued as of the start of FY 1998 (10/97):

- PMIS
- TMIS
- BCIS
- BMIS

The remaining AIMS systems will be converted to the CAMS umbrella by the start of FY 2000 (October 1999). When the AIMS systems have been converted, the AIMS hardware systems will revert to central IT for disposition.

